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EXAMINER

LONSBERRY, HUNTER B

ART UNIT

PAPER NUMBER

2611

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8

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/204,142	ARAI ET AL.
	Examiner	Art Unit
	Hunter B. Lonsberry	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_\_.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-37 and 39-46 is/are rejected.

7) Claim(s) 38 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 December 1998 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9, 10, 14, 15, 21, and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, meaning of the terms "common" and "non-common" program guide is unclear. The claim is generally narrative and indefinite, failing to conform to current U.S. practice. It appears to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claim 10, claim 10 is dependant on claim 9 and therefore rejected.

Regarding claim 14, the meaning of the phrase "... same as one or more virtual television programs not actually broadcasted..." is unclear and not supported by the specification.

Regarding claim 15, claim 15 is dependant on claim 14 and therefore rejected.

Regarding claim 21, the claim limitation of "information of the sub-channel services are transmitted through a particular transmission line in which television programs of the sub-channel services are actually transmitted." is not supported by the specification.

Regarding claim 34, the meaning of the phrase "... same as one or more virtual television programs not actually broadcasted..." is unclear and not supported by the specification.

#### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-8, 11-13, 26-33 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,850,218 to LaJoie.

Regarding claim 1, LaJoie discloses in Figure 3, a set-top box 6 with a memory 32, on which previously prepared program guide data is stored (column 13, lines 36-50) which was sent from application and media servers 15 and 16 in headend 2 (Figure 1, column 11, lines 46-54), EPG data for multiple program providers can be shown at the same time (Figure 16) or program information can be shown for a specific channel on its own (Figure 6).

Regarding claim 2, LaJoie discloses in Figure 16, an EPG which provides displays general program guide data for a plurality of stations 350, and program guide data for an individually selected station; the degree of detail of program guide information is different in that only program titles are displayed for the list of stations 350, whereas specific data 378 is provided for an individually selected station.

Regarding claim 3, LaJoie discloses in Figure 16, an EPG, which provides displays program titles and timeslots for a plurality of stations 350, and program guide data for an individually selected station with more descriptive information 378.

Regarding claim 4, LaJoie discloses in Figure 1, the use of a digital switch or multiplexer 17 which connected to servers 15 and 16 and set top boxes 8 via HFC 2 (column 11, line 61-column 12, line 10) outputs and multiplexes program guide data stored on server 15 with video data stored on media server 16.

Regarding claim 5, LaJoie discloses in Figure 5, a channel service map which shows a channel number and what video source is associated with it as well as descriptive program guide information 125 which is associated with that video source (column 16, lines 29-51), a digital switch or multiplexer 17 which connected to servers

15 and 16 and set top boxes 8 via HFC 2 (column 11, line 61-column 12, line 10) outputs and multiplexes program guide data stored on server 15 with video data stored on media server 16.

Regarding claim 6, LaJoie discloses in Figure 5, a channel service map that includes a channel table 101 and details a corresponding video source from video parameter table 105.

Regarding claim 7, LaJoie discloses in Figure 5, a channel service map which shows a channel number and what video source is associated with it as well as descriptive program guide information 125 which is associated with that video source (column 16, lines 29-51), a digital switch or multiplexer 17 which connected to servers 15 and 16 and set top boxes 8 via HFC 2 (column 11, line 61-column 12, line 10) outputs and multiplexes program guide data stored on server 15 with video data stored on media server 16.

Regarding claim 8, LaJoie discloses in Figure 16, an EPG which provides displays general program guide data for a plurality of stations 350, and program guide data for an individually selected station, a digital switch or multiplexer 17 which connected to servers 15 and 16 and set top boxes 8 via HFC 2 (column 11, line 61-column 12, line 10) outputs and multiplexes program guide data stored on server 15 with video data stored on media server 16.

Regarding claim 11, LaJoie discloses in Figure 5, a channel service map which shows a channel number and what video source is associated with it as well as descriptive program guide information 125 which is associated with that video source

(column 16, lines 29-51), an example of an EPG utilizing this data is shown in Figure 18, when a user selects a program from the EPG to view, the channel is automatically changed to that channel (column 26, lines 15-21).

Regarding claim 12, LaJoie shows in Figure 20 that EPG data can be rearranged by themes.

Regarding claim 13, LaJoie shows in Figure 20 that EPG data can be rearranged by themes and that a channel can be added to a favorites list 230 (Figure 10).

Regarding claim 26, LaJoie discloses in Figure 3, a set-top box 6 with a memory 32, on which previously prepared program guide data is stored (column 13, lines 36-50) which was sent from application and media servers 15 and 16 in headend 2 (Figure 1, column 11, lines 46-54), EPG data for multiple program providers can be shown at the same time (Figure 16) or program information can be shown for a specific channel on its own (Figure 6).

Regarding claim 27, LaJoie discloses in Figure 5, a channel service map comprised of several tables, the table information includes channel numbers, the video source is associated with each program channel as well as descriptive program guide information 125 which is associated with that video source (column 16, lines 29-51).

Regarding claim 29, LaJoie discloses in Figure 3, a set-top box 6 with a memory 32, on which previously prepared program guide data is stored (column 13, lines 36-50) which was sent from application and media servers 15 and 16 in headend 2 (Figure 1, column 11, lines 46-54), the program guide can be displayed to show program guide data for a number of channels (Figure 16), or for an individual channel (Figure 8).

Regarding claim 30, LaJoie discloses in Figure 3, a set top box 6 with s-video output 48 for displaying video images, a display can display a program guide which covers a number of channels simultaneously (Figure 16), or can display program guide data for just one channel while video programming is displayed in the background (Figure 4).

Regarding claim 31, LaJoie discloses in Figure 5, a channel service map which shows a channel number and what video source is associated with it as well as descriptive program guide information 125 which is associated with that video source (column 16, lines 29-51), an example of an EPG utilizing this data is shown in Figure 18, when a user selects a program from the EPG to view, the channel is automatically changed to that channel (column 26, lines 15-21).

Regarding claim 32, LaJoie shows in Figure 20 that EPG data can be rearranged by themes (Figure 21) and that a number of other services (Figures 11 and 14) such as timers can be utilized via a menu.

Regarding claim 33, LaJoie shows in Figure 20 that EPG data can be rearranged by themes and that a channel can be added to a favorites list 230 (Figure 10), supplementary services such as pay per view as well as timers are available (Figures 11, 14).

Regarding claim 39, LaJoie discloses an individual program guide (Figure 8), a common program guide (Figure 16); Figure 7 shows that channels may be changed by pressing a +/- button 102 in step 158 to change the channel to channel 4 from channel 3 (step 110), a channel may also be changed via a process shown in Figure 18: when a

user selects a program from the EPG to view, the channel is automatically changed to that channel (column 26, lines 15-21).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 16-20, 22-25, 35-37, and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,850,218 to LaJoie in view of U.S. Patent 5,900,915 to Morrison.

Regarding claim 16, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie fails to provide information on the transmission bandwidth of a particular program. Morrison discloses an EPG in Figure 2, which shows a video program, "Terminator 2: Judgment Day" being broadcasted on channels 105A-D and indicates in Figure 1, that if a program takes up the bandwidth associated with more than one of the channel numbers (step 18) that the program guide information is stretched by the appropriate number of channel numbers (Step 22) (column 3, lines 35-50, 56-65). Therefore, it would have been obvious to one skilled in the arts to modify LaJoie to include the bandwidth description capability as taught by Morrison so that a subscriber can know if a TV program is being carried in hi-definition or low definition.

Regarding claim 17, LaJoie discloses a common program guide with a plurality of channels, information indicating a broadcast program provider 352, scheduling information 394, and program description 346 (Figure 16). LaJoie does not disclose an EPG in which the display width of a television program is proportional to the transmission bandwidth of the television program. Morrison discloses an EPG in Figure 2, which shows a video program, "Terminator 2: Judgment Day" being broadcasted on channels 105A-D and indicates in Figure 1, that if a program takes up the bandwidth associated with more than one of the channel numbers (step 18) that the program guide information is stretched by the appropriate number of channel numbers (Step 22) (column 3, lines 35-50, 56-65). Therefore, it would have been obvious to one skilled in the arts to modify LaJoie to include the bandwidth description capability as taught by Morrison so that a subscriber can know if a TV program is being carried in hi-definition or low definition.

Regarding claim 18, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose a program guide that lists one or more sub-channel services. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period that are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison to make it easier for a subscriber to navigate all programming choices carried on a specific channel.

Regarding claim 19, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose a program guide that lists one or more sub-channel services. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period that are carried on channels 105A-D; the EPG data is prepared by a CPU 110 coupled to EPG memory 117 (Figure 6, column 5, lines 20-25). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison to make it easier for a subscriber to navigate all programming choices carried on a specific channel.

Regarding claim 20, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose a program guide that lists one or more sub-channel services. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D, Figure 1 also shows that a main program can be displayed utilizing the bandwidth from channels A-D starting at the 1:30 time slot; the EPG data is prepared by a CPU 110 coupled to EPG memory 117 (Figure 6, column 5, lines 20-25). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison to make it easier for a subscriber to navigate all programming choices carried on a specific channel.

Regarding claim 22, LaJoie discloses a CATV network on which video programs are received via satellites 10 and sent to subscribers via HFC 5, application and media

servers 15 and 16 in headend 2 distribute EPG data to set top boxes 6 via digital switch 17 and gateway 19 (Figure 1, column 11, lines 46-54), EPG data for multiple program providers can be shown at the same time (Figure 16) or program information can be shown for a specific channel on its own (Figure 6). LaJoie does not disclose a program guide that lists one or more sub-channel services. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the selection indicator of LaJoie to include the sub-channel program information of Morrison allowing a user to select a sub-channel to tune to resulting in making it easier for a subscriber to navigate and select from all programming choices carried on a specific channel.

Regarding claim 23, LaJoie discloses a common program guide with a plurality of channels (Figure 16) and a box 390, which designates a currently selected channel. LaJoie does not disclose a program guide which lists one or more sub-channel services. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the selection indicator of LaJoie to include the sub-channel program information of Morrison allowing a user to select a sub-channel to tune to resulting in making it easier for a subscriber to navigate and select from all programming choices carried on a specific channel.

Regarding claim 24, LaJoie discloses in Figure 8, that a channel may have a favorites attribute 166 (column 19, lines 30-35) and that channels can be organized by a theme or by listing favorites channels (Figures 10,20). LaJoie does not disclose the listing of sub-channels in an EPG. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison enabling a user to organize sub-channel programming in addition to regular broadcast programming resulting in making it easier for a subscriber to navigate and select from all programming choices carried on a specific channel.

Regarding claim 25, see claim 24.

Regarding claim 35, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose an EPG where program guide information extends over several channels. Morrison discloses an EPG in Figure 2, which shows a video program, "Terminator 2: Judgment Day" being broadcasted on channels 105A-D and indicates in Figure 1, that if a program takes up the bandwidth associated with more than one of the channel numbers (step 18) that the program guide information is stretched by the appropriate number of channel numbers (Step 22) (column 3, lines 35-50, 56-65). Therefore, it would have been obvious to one skilled in the arts to modify LaJoie to include the bandwidth description capability as taught by Morrison so that a subscriber can know if a TV program is being carried in hi-definition or low definition.

Regarding claim 36, see claim 23.

Regarding claim 37, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose an EPG that indicates display quality information. Morrison discloses an EPG in Figure 2, which shows a video program, "Terminator 2: Judgment Day" being broadcasted on channels 105A-D; Figure 1 shows a flowchart in which a check for a digitally encoded program is performed (step 14), if the program is digital, it is expanded over a number of cells proportionally to the number of sub-channels on which program data is carried (Steps 18, 22, column 3, lines 35-50, 56-65). Therefore, it would have been obvious to one skilled in the arts to modify LaJoie to include the bandwidth description capability as taught by Morrison so that a subscriber can know if a TV program is being carried in hi-definition or low definition.

Regarding claim 40, LaJoie discloses a common program guide with a plurality of channels (Figure 16). LaJoie does not disclose an EPG that indicates sub band programming. Morrison discloses in Figure 5 the program "Terminator 2: Judgment Day" which is listed in cells 105A-D, the program is not being aired separately, but indicates that the program occupies the bandwidth of the four channels (column 3, lines 22-33). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the individual program guide of LaJoie to display the program information as taught by Morrison so that a subscriber can know if a TV program is being carried in hi-definition or low definition.

Regarding claim 41, LaJoie discloses in Figure 16, an EPG that is organized by channel number. LaJoie does not disclose the listing of sub-channels in an EPG.

Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison enabling a user to organize sub-channel programming in addition to regular broadcast programming resulting in making it easier for a subscriber to navigate and select from all programming choices carried on a specific channel.

Regarding claim 42, LaJoie discloses in Figure 16, an EPG that is organized by channel number and a set to box 6, which contains RF output 45 and s-video output 48 (Figure 3) for the display of video selected in a program guide (column 14, lines 46-57). LaJoie does not disclose the listing of sub-channels in an EPG. Morrison discloses a general program guide in Figure 2, which lists a number of programs hierarchically listed at the 1:00 time period, which are carried on channels 105A-D. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to include the sub-channel program information of Morrison enabling a user to organize sub-channel programming in addition to regular broadcast programming resulting in making it easier for a subscriber to navigate and select from all programming choices carried on a specific channel.

Regarding claim 43, see claim 42.

Regarding claim 44, see claim 24.

Regarding claim 45, see claim 24.

Regarding claim 46, LaJoie discloses in Figure 16, an EPG that is organized by channel number (Figure 16). LaJoie Does not disclose a set top box, which selects a default sub-channel program to display when a primary channel number is selected. The examiner takes official notice that the use of a default sub-channel program to be displayed when a major channel number is tuned to is well known in the art. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify LaJoie to tune to a default sub channel so that a subscriber would be provided with programming whenever a channel selection is made.

***Allowable Subject Matter***

Claims 38 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5359 for regular communications and 703-372-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
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HBL  
April 19, 2002